

CLAIMS

In the claims:

1. A system for delaying activation of a powered device intended to operate remotely in an environment in which a pH value changes from a first value to a second value, comprising:

a housing;

a restraining component proximally associated with said housing, said restraining component being separable from said housing upon exposure to an environment having a pH value substantially equal to said second value;

a normally closed electrical circuit disposed in said housing; said circuit having a battery power source connected with the powered device, whereby the powered device is powered upon the closing of said circuit;

said circuit having a switch sensitive to the presence of said restraining component; said switch being configured to open said circuit in the presence of said restraining component and to close said circuit in the absence of said restraining component;

whereby when said housing encounters an environment having a pH value equal to said second value, said restraining component separates from said housing and said circuit closes, powering said electrically powered device.

2. The system of Claim 1, further comprising a surface exterior to said housing, a coating, and a magnetic field source, wherein said magnetic field source is fixed to said surface by said coating.

3. The system of Claim 2, wherein said magnetic field source comprises a magnet fixed to said surface by said coating.

4. The system of Claim 3, wherein said magnet is disposed in a dimple defined in said surface.

5. The system of Claim 2, wherein said coating comprises a pH-sensitive material.

6. The system of Claim 1, wherein said housing is a swallowable capsule.
7. The system of Claim 1, wherein said powered device includes a video camera.
8. The system of Claim 1, further comprising a magnetic field source and a magnetic field, wherein said restraining component is said magnetic field source, wherein said switch is configured to open said circuit in the presence of said magnetic field, and wherein said switch is configured to close said circuit in the absence of said magnetic field.
9. The system of Claim 1, further comprising a dissolvable material, wherein said restraining component is said dissolvable material, and wherein said dissolvable material is configured to dissolve upon exposure to said environment having said pH value equal to said second value.
10. The system of Claim 1, further comprising a circuit and a magnetic field holding a Hall effect device in a nonconducting mode, wherein said magnetic field is separated from said housing, wherein said Hall effect device is configured to transition to a conducting mode, thereby closing said circuit and powering the powered device.
11. The system of claim 1, further comprising a switch and a magnetic field, wherein said switch is biased closed, but opened when influenced by said magnetic field.
12. The system of Claim 11, wherein said switch includes a Hall effect device, said magnetic field holding said Hall effect device in a nonconducting mode, so that when said magnetic field is separated from said housing, said Hall effect device transitions to a conducting mode, thereby closing the circuit and powering the powered device.
13. The system of Claim 12, wherein said Hall effect device is a Hall effect transistor.
14. The system of Claim 1, further comprising a coating, wherein said coating is dissolvable upon exposure to an environment having a pH value substantially equal to said second value.
15. The system of Claim 1, wherein said environment having said pH value equal to said second value is an internal area of a human body.

16. The system of Claim 15, wherein the human being need not be stationary.
17. The system of Claim 1, wherein said environment is an alimentary canal.
18. The system of Claim 11, wherein the size of the powered device is smaller than a comparable powered device not capable of remote or delayed activation.
19. The system of Claim 1, wherein said restraining component is configured to dissolve in a predefined location within the human body.
20. The system of Claim 1, further comprising a coating and a magnetizable material, wherein said coating includes a magnetizable material.
21. The system of Claim 20, wherein said magnetizable material includes an iron powder.
22. The system of Claim 1, wherein said restraining component includes a movable contact and a stationary contact.
23. The system of Claim 22, further comprising a conductive material, wherein at least one of said movable contact and said stationary contact is made of said conductive material.
24. The system of Claim 1, wherein only said restraining component is exposed to said environment with said pH value of said second value.
25. The system of Claim 1, wherein said system is an endoscopic capsule.
26. The system of Claim 1, wherein said restraining component is a rare earth magnet.
27. A system for delaying the activation of a device within a living organism, comprising:
 - a device requiring power to perform a predetermined function;
 - a power source capable of powering said device for a finite period of time; and

an activating component configured to allow said battery to power said device upon exposure to a predetermined environment, wherein said device is not powered until said exposure to said predetermined environment occurs.

28. The system of Claim 27, wherein the device is a swallowable capsule.

29. The system of Claim 27, wherein said activating component includes at least one of: (a) a dissolvable material; and (b) a magnetic field source.

30. The system of Claim 27, wherein said predetermined environment is a predetermined pH value.

31. The system of Claim 27, wherein said activation component is a normally closed switch located between said power source and said device, said device including a first contact and a second contact, wherein said first contact includes a coating designed to dissolve upon exposure to said predetermined environment.

32. The system of Claim 31, wherein said coating comprises a pH-sensitive element designed to dissolve upon exposure to a predetermined pH value.

33. The system of Claim 31, wherein the first contact is a stationary contact and the second contact is a moveable contact.

34. The system of Claim 31, wherein said switch comprises a reed switch.

35. The system of Claim 31, wherein said switch comprises a Hall effect device.

36. The system of Claim 31, wherein said device includes a video camera.

37. The system of Claim 31, wherein the device is used in the alimentary canal of a human being.

38. The system of Claim 37, wherein the movement of a human being is substantially unimpeded while said device is in use.

39. The system of Claim 31, wherein said device and said power source are not exposed to the predetermined environment and wherein said switch is exposed to the predetermined environment.

40. A method for delaying activation of a device, comprising:
creating a normally closed electrical circuit by connecting in a power source, a normally closed switch, and a device, wherein said switch comprises a first contact and a second contact;
coating the first contact with a coating designed to dissolve upon exposure to a predetermined environment.

41. The method of Claim 40, wherein the device is a swallowable capsule.

42. The method of Claim 40, wherein the coating comprises a pH-sensitive element designed to dissolve upon exposure to a predetermined environment.

43. The method of Claim 40, wherein the predetermined environment is an environment having a specified pH value.

44. The method of Claim 40, wherein the first contact is a stationary contact and the second contact is a moveable contact.

45. The method of Claim 40, wherein the first contact is a moveable contact and the second contact is a stationary contact.

46. The method of Claim 40, wherein the switch comprises a reed switch.

47. The method of Claim 40, wherein the switch comprises a Hall effect device.

48. The method of Claim 47, wherein the Hall effect device is a Hall effect transistor.

49. The method of Claim 40, wherein the coating further comprises a magnetic element.

50. The method of Claim 40, wherein removing a magnetic field from the device causes the switch to close.

51. The method of Claim 40, wherein the device includes a video camera.
52. The method of Claim 40, wherein the device is used in the alimentary canal of a human being.
53. The method of Claim 40, wherein the device is ingested by a human being and the mobility of the human being is substantially unimpeded.
54. The method of claim 40, wherein the device and the battery are not exposed to the predetermined environment and further wherein the switch is exposed to the predetermined environment.